#### PCT From the INTERNATIONAL SEARCHING AUTHORITY To: NOTIFICATION OF TRANSMITTAL OF ETUDES ET PRODUCTIONS SCHLUMBERGER THE INTERNATIONAL SEARCH REPORT Propriete Intellectuelle OR THE DECLARATION Attn. Hyden, Martin 1, rue Henri Becquerel (PCT Rule 44.1) **BP** 202 F-92142 Clama SERVICE BREVETS & CONTRATS FRANCE Reçu - 1 AOUT 2003 Date of mailing le (day/month/year) 01/08/2003 Applicant's or agent's fie refeSRPC - Clamart FOR FURTHER ACTION See paragraphs 1 and 4 below 21.1059 WO International filing date International application No. (day/month/year) 10/04/2003 PCT/EP 03/50102 Applicant SERVICES PETROLIERS SCHLUMBERGER

1. χ	] Th	е арр	licant is hereby n	otified that the International Search Report has been established and is transmitted herewith.					
	Fil Th	Filing of amendments and statement under Article 19:  The applicant is entitled, if he so wishes, to amend the claims of the International Application (see Rule 46):							
•	When? The time limit for filing such amendments is normally 2 months from the date of transmittal international Search Report; however, for more details, see the notes on the accompanying								
	W	here?	Directly to the	International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Fascimile No.: (41–22) 740.14.35					
	Fo	For more detailed instructions, see the notes on the accompanying sheet.							
2.	] Th	ne app ticle 1	blicant is hereby r 17(2)(a) to that ef	notified that no International Search Report will be established and that the declaration undefect is transmitted herewith.					
3. [	] w	ith re	gard to the prot	est against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:					
		] th ap	e protest togethe oplicant's request	r with the decision thereon has been transmitted to the International Bureau together with the to forward the texts of both the protest and the decision thereon to the designated Offices.					
		no	decision has be	en made yet on the protest; the applicant will be notified as soon as a decision is made.					
4. F	urthe	r acti	on(s): The app	olicant is reminded of the following:					
s	If the	applion	cant wishes to avenue of the must reach the	the priority date, the international application will be published by the International Bureau. oid or postpone publication, a notice of withdrawal of the international application, or of the e International Bureau as provided in Rules 90bis.1 and 90bis.3, respectively, before the preparations for international publication.					
W	/ithin wishe	<b>19 m</b> es to p	onths from the propostpone the entr	riority date, a demand for international preliminary examination must be filed if the applicant y into the national phase until 30 months from the priority date (in some Offices even later).					
٧	befor	e all d	designated Office	riority date, the applicant must perform the prescribed acts for entry into the national phase s which have not been elected in the demand or in a later election within 19 months from the elected because they are not bound by Chapter II.					

Name and mailing address of the International Searching Authority

European Patent Office, P.B. 5818 Patentlaan 2 Tel. (+31-70) 340-3016 Fax: (+31-70) 340-3016

Authorized officer

Yannick Gouby

#### NOTES TO FORM PCT/ISA/220

These Notes are intended to give the basic instructions concerning the filing of amendments under article 19. The Notes are based on the requirements of the Patent Cooperation Treaty, the Regulations and the Administrative Instructions under that Treaty. In case of discrepancy between these Notes and those requirements, the latter are applicable. For more detailed information, see also the PCT Applicant's Guide, a publication of WIPO.

In these Notes, "Article", "Rule", and "Section" refer to the provisions of the PCT, the PCT Regulations and the PCT Administrative Instructions respectively.

### INSTRUCTIONS CONCERNING AMENDMENTS UNDER ARTICLE 19

The applicant has, after having received the international search report, one opportunity to amend the claims of the international application. It should however be emphasized that, since all parts of the international application (claims, description and drawings) may be amended during the international preliminary examination procedure, there is usually no need to file amendments of the claims under Article 19 except where, e.g. the applicant wants the latter to be published for the purposes of provisional protection or has another reason for amending the claims before international publication. Furthermore, it should be emphasized that provisional protection is available in some States only.

### What parts of the international application may be amended?

Under Article 19, only the claims may be amended.

During the international phase, the claims may also be amended (or further amended) under Article 34 before the International Preliminary Examining Authority. The description and drawings may only be amended under Article 34 before the International Examining Authority.

Upon entry into the national phase, all parts of the international application may be amended under Article 28 or, where applicable, Article 41.

### When?

Within 2 months from the date of transmittal of the international search report or 16 months from the priority date, whichever time limit expires later. It should be noted, however, that the amendments will be considered as having been received on time if they are received by the International Bureau after the expiration of the applicable time limit but before the completion of the technical preparations for international publication (Rule 46.1).

### Where not to file the amendments?

The amendments may only be filed with the International Bureau and not with the receiving Office or the International Searching Authority (Rule 46.2).

Where a demand for international preliminary examination has been in filed, see below.

### How?

Either by cancelling one or more entire claims, by adding one or more new claims or by amending the text of one or more of the claims as filed.

A replacement sheet must be submitted for each sheet of the claims which, on account of an amendment or amendments, differs from the sheet originally filed.

All the claims appearing on a replacement sheet must be numbered in Arabic numerals. Where a claim is cancelled, no renumbering of the other claims is required. In all cases where claims are renumbered, they must be renumbered consecutively (Administrative Instructions, Section 205(b)).

The amendments must be made in the language in which the international application is to be published.

### What documents must/may accompany the amendments?

Letter (Section 205(b)):

The amendments must be submitted with a letter.

The letter will not be published with the international application and the amended claims. It should not be confused with the "Statement under Article 19(1)" (see below, under "Statement under Article 19(1)").

The letter must be in English or French, at the choice of the applicant. However, if the language of the international application is English, the letter must be in English; if the language of the international application is French, the letter must be in French.

### **NOTES TO FORM PCT/ISA/220 (continued)**

The letter must indicate the differences between the claims as filed and the claims as amended. It must, in particular, indicate, in connection with each claim appearing in the international application (it being understood that identical indications concerning several claims may be grouped), whether

- (i) the claim is unchanged;
- (ii) the claim is cancelled;
- (iii) the claim is new;
- (iv) the claim replaces one or more claims as filed;
- (v) the claim is the result of the division of a claim as filed.

### The following examples illustrate the manner in which amendments must be explained in the accompanying letter:

- [Where originally there were 48 claims and after amendment of some claims there are 51]:
  "Claims 1 to 29, 31, 32, 34, 35, 37 to 48 replaced by amended claims bearing the same numbers;
  claims 30, 33 and 36 unchanged; new claims 49 to 51 added."
- [Where originally there were 15 claims and after amendment of all claims there are 11]: "Claims 1 to 15 replaced by amended claims 1 to 11."
- (Where originally there were 14 claims and the amendments consist in cancelling some claims and in adding new claims):
   "Claims 1 to 6 and 14 unchanged; claims 7 to 13 cancelled; new claims 15, 16 and 17 added." or "Claims 7 to 13 cancelled; new claims 15, 16 and 17 added; all other claims unchanged."
- 4. [Where various kinds of amendments are made]: "Claims 1-10 unchanged; claims 11 to 13, 18 and 19 cancelled; claims 14, 15 and 16 replaced by amended claim 14; claim 17 subdivided into amended claims 15, 16 and 17; new claims 20 and 21 added."

### "Statement under article 19(1)" (Rule 46.4)

The amendments may be accompanied by a statement explaining the amendments and indicating any impact that such amendments might have on the description and the drawings (which cannot be amended under Article 19(1)).

The statement will be published with the international application and the amended claims.

It must be in the language in which the international appplication is to be published.

It must be brief, not exceeding 500 words if in English or if translated into English.

It should not be confused with and does not replace the letter indicating the differences between the claims as filed and as amended. It must be filed on a separate sheet and must be identified as such by a heading, preferably by using the words "Statement under Article 19(1)."

It may not contain any disparaging comments on the international search report or the relevance of citations contained in that report. Reference to citations, relevant to a given claim, contained in the international search report may be made only in connection with an amendment of that claim.

#### Consequence if a demand for international preliminary examination has already been filed

If, at the time of filing any amendments under Article 19, a demand for international preliminary examination has already been submitted, the applicant must preferably, at the same time of filing the amendments with the International Bureau, also file a copy of such amendments with the International Preliminary Examining Authority (see Rule 62.2(a), first sentence).

### Consequence with regard to translation of the international application for entry into the national phase

The applicant's attention is drawn to the fact that, where upon entry into the national phase, a translation of the claims as amended under Article 19 may have to be furnished to the designated/elected Offices, instead of, or in addition to, the translation of the claims as filed.

For further details on the requirements of each designated/elected Office, see Volume II of the PCT Applicant's Guide.



## **PCT**

### INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference	FOR FURTHER see Notification of	Transmittal of International Search Report 20) as well as, where applicable, item 5 below.
21.1059 WO	ACTION (Form PC1/ISA/22	
International application No.	International filing date (day/month/year)	(Earliest) Priority Date (day/month/year)
PCT/EP 03/50102	10/04/2003	24/04/2002
Applicant		
SERVICES PETROLIERS SCHLU	MBERGER .	
This International Search Report has bee according to Article 18. A copy is being tr	n prepared by this International Searching Authansmitted to the International Bureau.	nority and is transmitted to the applicant
This International Search Report consists  It is also accompanied by	s of a total of sheets.  If a copy of each prior art document cited in this	report.
Basis of the report		
With regard to the language, the language in which it was filed, ur	international search was carried out on the bar less otherwise indicated under this item.	sis of the international application in the
the international search (Authority (Rule 23.1(b)).	was carried out on the basis of a translation of t	he international application furnished to this
b. With regard to any nucleotide a was carried out on the basis of the	nd/or amino acid sequence disclosed in the in the sequence listing: onal application in written form.	nternational application, the international search
filed together with the int	ernational application in computer readable for	m.
<u> </u>	o this Authority in written form.	
1	to this Authority in computer readble form.	
the statement that the su international application	absequently furnished written sequence listing on as filed has been furnished.	does not go beyond the disclosure in the
· ·		is identical to the written sequence listing has been
2. Certain claims were to	und unsearchable (See Box I).	
3. Unity of invention is la	cking (see Box II).	
4. With regard to the title,		
	submitted by the applicant.	
the text has been estab	lished by this Authority to read as follows:	
5. With regard to the abstract,		
X the text is approved as	submitted by the applicant.	
the text has been estab within one month from t	lished, according to Rule 38.2(b), by this Autho he date of mailing of this international search re	rity as it appears in Box III. The applicant may, eport, submit comments to this Authority.
	ublished with the abstract is Figure No.	1
X as suggested by the ap	plicant.	None of the figures.
because the applicant t	ailed to suggest a figure.	
because this figure bett	er characterizes the invention.	

A. CLASSIFICATION OF SUBJECT MATTER IPC 7 E21B47/06 E21E E21B49/10 E21B47/01 According to International Patent Classification (IPC) or to both national classification and IPC **B. FIELDS SEARCHED** Minimum documentation searched (classification system followed by classification symbols) IPC 7 E21B Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practical, search terms used) EPO-Internal C. DOCUMENTS CONSIDERED TO BE RELEVANT Relevant to claim No. Citation of document, with indication, where appropriate, of the relevant passages Category EP 0 984 135 A (SCHLUMBERGER SERVICES 1 Α PETROL ; SCHLUMBERGER HOLDINGS (VG)) 8 March 2000 (2000-03-08) cited in the application abstract figures 1,2,7 EP 0 994 238 A (SCHLUMBERGER SERVICES Α PETROL ; SCHLUMBERGER HOLDINGS (VG)) 19 April 2000 (2000-04-19) abstract US 5 765 637 A (DIETLE LANNIE ET AL) Α 16 June 1998 (1998-06-16) abstract -/--Patent family members are listed in annex. Further documents are listed in the continuation of box C. X Special categories of cited documents: "T" tater document published after the international filing date or priority date and not in conflict with the application but "A" document defining the general state of the art which is not cited to understand the principle or theory underlying the considered to be of particular relevance invention "E" earlier document but published on or after the international \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such docudocument referring to an oral disclosure, use, exhibition or ments, such combination being obvious to a person skilled other means document published prior to the international filing date but later than the priority date claimed "&" document member of the same patent family Date of mailing of the international search report Date of the actual completion of the international search 25 July 2003 01/08/2003 Name and mailing address of the ISA Authorized officer European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016 Schouten, A

1

Category °	ation) DOCUMENTS CONSIDERED TO BE RELEVANT  Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 0 791 723 A (SCHLUMBERGER SERVICES PETROL ;SCHLUMBERGER TECHNOLOGY BV (NL); SCH) 27 August 1997 (1997-08-27) abstract	1
:		

1

	ent document in search report		Publication date		Patent family member(s)	Publication date
FP	0984135	Α	08-03-2000	US	6070662 A	06-06-2000
				AU	758816 B2	03-04-2003
				AU	4015399 A	09-03-2000
				BR	9903775 A	09-10-2001
	•			CN	1249392 A	05-04-2000
				EP	0984135 A2	08-03-2000
				NO	993947 A	21-02-2000
				RU	2169837 C2	27-06-2001
				US	2002149498 A1	17-10-2002
				US	2002171560 A1	21-11-2002
				US	2003058125 A1	27-03-2003
				US	6426917 B1	30-07-2002
EP	0994238	Α	19-04-2000	US	6164126 A	26-12-2000
				AU	756138 B2	02-01-2003
				AU	5019699 A	20-04-2000
				BR	9904424 A	05-09-2000
				CN	1251408 A	26-04-2000
				EP	0994238 A2	19-04-2000
				NO	994994 A	17-04-2000
				RU	2178525 C2	20-01-2002
US	5765637	Α	16-06-1998	NONE		
EP	0791723	Α	27-08-1997	US	5692565 A	02-12-1997
-:				AU	720235 B2	25-05-2000
				AU	1479597 A	28-08-1997
				CA	2197962 A1	21-08-1997
		•	•	EP.	0791723 A1	27-08-1997
			•	NO	970769 A	21-08-1997

# This Page is Inserted by IFW Indexing and Scanning Operations and is not part of the Official Record

### **BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

BLACK BORDERS

IMAGE CUT OFF AT TOP, BOTTOM OR SIDES

FADED TEXT OR DRAWING

BLURRED OR ILLEGIBLE TEXT OR DRAWING

SKEWED/SLANTED IMAGES

COLOR OR BLACK AND WHITE PHOTOGRAPHS

GRAY SCALE DOCUMENTS

LINES OR MARKS ON ORIGINAL DOCUMENT

REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY

OTHER:

### IMAGES ARE BEST AVAILABLE COPY.

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.